(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 19 May 2005 (19.05.2005)

PCT

(10) International Publication Number WO 2005/045010 A1

(51) International Patent Classification7: 1/00, 5/00

C12N 5/08,

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(21) International Application Number:

PCT/KR2004/002715

(22) International Filing Date: 25 October 2004 (25.10.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 10-2003-0079362

11 November 2003 (11.11.2003) KR

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,

MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

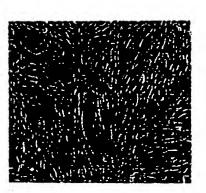
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF ISOLATING AND CULTURING MESENCHYMAL STEM CELL DERIVED FROM UMBILICAL CORD BLOOD



(57) Abstract: The present invention relates to a method of isolating and culturing mesenchymal stem cells using umbilical cord blood that is most ideal for cell therapy. The method comprises adding an anti-coagulant to umbilical cord blood having a volume of more than 45 ml per unit, which is obtained within 24 hours after parturition; diluting the resulting mixture of the anti-coagulant and umbilical cord blood with an αMEM (alpha-minimum essential medium), followed by centrifugation to harvest monocytes; and subjecting the obtained monocytes into suspension culture in the αMEM containing Stem Cell Factor, GM-CSF (granulocyte-macrophage colony-stimulating factor), G-CSF (granulocyte colony-stimulating factor), IL-3 (interleukin-3) and IL-6 (interleukin-6).

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